

REMARKS

Applicant respectfully requests reconsideration and allowance of all pending claims in view of the above-amendments and the following remarks.

I. DOUBLE PATENTING

Claims 1 and 20-22 were rejected on the ground of non-statutory obvious-type double patenting as being over claims 1 and 19 of copending application 10/561,373, which has now issued as U.S. Patent No. 7,698,382.

Applicant is presently obtaining a signed Terminal Disclaimer and statement under 3.73(b), which are believed to overcome the obviousness-type double patenting rejection. Applicant anticipates that these documents will be submitted shortly, prior to the next official action.

II. CLAIM AMENDMENTS

Claim 2 is amended to correct antecedent basis for the term “application”.

Claim 14 is amended to improve the grammar of the sentence.

III. CLAIM REJECTIONS UNDER 35 U.S.C. § 103

Claims 1-3, 8, and 11-22 are rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Andy XP - 002283767 March 2002, and in view of Ichihara, U.S. Patent No. 5,640,413.

Claims 4-7, 9 and 10 were rejected under U.S.C. 103(a) as being allegedly unpatentable over Andy XP-002283767 March 2002, and in view of Ichihara, U.S. Patent No. 5,640,413 June 17, 1997 and further in view of Petite, U.S. Patent No. 7,103,511 B2, September 5, 2006.

A. Andy

Contrary to ANDY, pending claim 1 relates to a particular implementation of a set of three physical entities, namely:

- a remote apparatus (e.g., terminal), which for example can be associated to one or several given applications;
- a broker carrying out the MQIsdp protocol;
- radiocommunication means (the radiocommunication means are for example integrated in a radiocommunication module or a radiocommunication device which is independent from the remote terminal to which they are associated) for ensuring the interconnection between the remote terminal and the broker.

More specifically, the radiocommunication means manage a set of specific API functions that enables a remote terminal to dialogue with radiocommunication means and to require the radiocommunication means to execute certain predetermined actions with the broker, so that the remote terminal does not need to know the MQIsdp protocol carried out by the broker.

To that end, radiocommunication means comprise more particularly (pending claim 1):

- exchanging means for:
 - * exchanging data with the remote terminal according to a set of specific API functions;
 - * exchanging data with the broker according to the MQIsdp protocol; and
- interfacing means for interfacing between the set of specific API functions and the MQIsdp protocol carried out by the broker.

In this way, on the broker side, the information that the broker sends or receives are in the MQIsdp format and, on remote terminal side, it is not necessary to know this protocol since the radiocommunication means (thanks to the interface means) ensures the interface between the API functions and the MQIsdp protocol.

Therefore, although ANDY discloses (using the terms of pending claim 1) a system for remote controlling equipments (*« a system that manages the flow of information from remote devices to any enterprise applications that need the data », p.3, l.1-3, « telemetry integration applications », p.9, l.8*) enabling interconnection between at least one broker (*« broker »*) and at least one remote equipment (*« client »*), according to the MQIsdp protocol, radiocommunication means being associated with the remote equipment (*« the devices communicate with the Arcom*

Director unit using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc Goup », p.12, L3-4, « communicating through Very Small Aperture Terminal (VSAT) satellite links », p.13, L3), there is nothing in ANDY that discloses or suggests the integration, between the remote terminal and the broker, of radiocommunication means that assure, thanks to the implementation of interface means for making an interface between the specific API functions and the MQIsdp protocol, an interconnection between the remote terminal and the broker and the implementation of data exchanges between those two entities in a transparent way for the remote terminal.

The Examiner suggests (*see page 16, last paragraph of the Office Action*) that the interface means are evoked in ANDY, citing page 9, lines 15-17 and page 10, lines 1-4. But the citation of ANDY raised by the Examiner seems simply to suggest that the MQIsdp protocol specification does not detail the application programming interface (API) presented to the client device since the interface depends on each specific application of the terminal. Indeed, as a general principle, a remote terminal comprises, in its own integrated equipment, a library of functions to enable the terminal to understand instructions received by the broker according to the MQIsdp protocol. API functions are thus specific for each application of each terminal and are an integral part of the terminal that shall necessarily have a hardware architecture and software architecture so as to work according to the MQIsdp protocol.

In contrast, due to the radiocommunication means and the implementation of a set of specific API functions disclosed in the present patent application, the remote terminal, which is frequently limited in terms of resources and power (usually called “equipment of intelligence limited”), is no longer constrained to integrate specific means to the MQIsdp protocol. Rather, the corresponding functions are handled by the radiocommunication means according to the present invention recited in claim 1.

As a consequence, the subject-matter of pending claim 1 is new in view of ANDY.

B. Ichihira

ICHIHIRA proposes a mobile communication system in which a CDMA protocol is used for downlink communications between a base station 1 and a mobile terminal 2 and a TDMA

protocol is used for uplink communications. ICHIHIRA's system is based on integration of a mixed-type technology using CDMA/TDMA protocols enabling optimal utilization of CDMA downlink and TDMA uplink properties. In particular, this system is based on generation of a synchronization signal of the mobile terminal 28 from a spread spectrum signal sent by the base station 1, which enables synchronization of data transmitted according to the TDMA protocol without having to add a synchronization signal to the CDMA signal transmitted by the base station (*see col.2, l.1-47*).

ICHIHIRA belongs to an unrelated technical field to the one of the present patent application. Indeed, ICHIHIRA aims at optimizing the functioning of a CDMA/TDMA mixte-type technology embedded in a mobile communication system comprising a base station and a mobile terminal and, more particularly, ICHIHIRA aims at facilitating calculation of timing for transmission of a TDMA signal (*see col.2, l.15-29*), whereas the present application aims at interconnecting a broker implementing a MQIsdp protocol and remote equipment that is limited in resources and power, which does not know the protocol MQIsdp.

In addition, ICHIHIRA does not disclose a system for remotely controlling equipment, which enables interconnection between one or more brokers (each carrying out the protocol MQIsdp) and one or more remote equipment. ICHIHIRA concerns a communication system between a base station and a mobile terminal based on a CDMA/TDMA mixte-type technology. Therefore, there is no consideration in ICHIHIRA about an interconnection mechanism between a broker carrying out a MQIsdp protocol and remote equipment. Besides, the notions of "broker" and "MQIsdp" are not evoked in this document.

Further, there is nothing in ICHIHIRA that discloses or suggests that the remote equipment is equipped with radiocommunication means comprising:

- exchanging means for:
 - * exchanging data between said radiocommunication means and said at least one remote apparatus according to a set of specific API functions;
 - * exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp protocol;

- interfacing means for making interface between said set of specific API functions and said MQIsdp protocol, so as to enable an interconnection between said at least one broker and said at least one remote apparatus via said radiocommunication means without said at least one remote apparatus knowing said MQIsdp protocol.

Therefore, contrary to what the Examiner suggests (*see pages 17-18 of Office Action*), ICHIHARA does not disclose interconnection means for making an interconnection between the broker, which carries out the MQIsdp protocol, and the remote equipment without the remote equipment knowing the MQIsdp protocol.

As a consequence, the subject-matter of pending claim 1 is new in view of ICHIHARA.

C. Non-Obviousness of Claim 1 in View of the Proposed Combination of Andy and Ichihira

In light of the analysis developed above, neither ANDY nor ICHIHARA is relevant towards pending claim 1, notably because neither of them discloses the features of pending claim 1 according to which the remote apparatus is associated with radiocommunication means comprising:

- exchanging means for:
 - * exchanging data between said radiocommunication means and said at least one remote apparatus according to a set of specific API functions;
 - * exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp protocol;
- interfacing means for making interface between said set of specific API functions and said MQIsdp protocol, so as to enable an interconnection between said at least one broker and said at least one remote apparatus via said radiocommunication means without said at least one remote apparatus knowing said MQIsdp protocol.

Thus the combination of ANDY nor ICHIHARA is also not relevant towards pending claim 1, with neither of them providing or suggesting the aforesaid features.

For similar reasons, independent claims 20, 21, 22 are also new and non-obvious because they cover similar subject-matter as claim 1.

Dependent claims 2 to 19 are new and non-obvious at least because they depend on claim 1, which is new and non-obvious.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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